REMARKS

Claims 1-29 are in the case.

Claim 28 has been deleted without prejudice.

Claim 25 has been amended to include assigning time slots in the first and second channels. Claims 27 and 29 have been amended to be dependent on claim 25.

Claim Objections

At paragraph 1 of the Office Action, claim 1 was objected to as containing the phrase "a field unit" which the Examiner has suggested should read "the field unit." Applicants have amended claim 1, but differently from what was suggested by the Examiner. Applicants believe that claim 1 as amended now overcomes this objection.

§ 102 Rejection

At paragraph 3 of the Office Action, claims 1-15 and 17-29 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent 6,512,751 to Struhsaker et al. (hereinafter "Struhsaker").

Description of the Present Invention

The present invention relates to a technique for optimizing wireless links in a Code Division Multiple Access (CDMA) communication system. According to the technique, a first forward link channel is allocated to support message transmissions from a base station to multiple field units. A second reverse link channel is allocated to support message transmissions from the field units to the base station. Each channel is partitioned into time slots where a time slot in the forward link channel is assigned to a field unit for directing communications between the base station and the corresponding field unit, and a time slot for the reverse link channel is assigned for use by a field unit to transmit messages to the base station. Timing alignment of the first and second channels is achieved by adjusting the respective timing of one channel based upon message transmissions indicating how to achieve synchronization.

Description of the Cited Art

Struhsaker describes a wireless local loop (WLL) that has a first interface connected to a telecommunications network and a second interface that connects the WLL to various customer premise equipment, such as telephones, faxes, and computers. The WLL connects the first interface to the second interface using a time division duplex (TDD) code-division multiple access (CDMA) system that employs point-to-multipoint radio frequency (RF) communication channels. The RF communication channels provide traffic/bearer data, user control data and radio link specific overhead data to a user. See Col. 3, lines 16-26, Col. 5, 44-55 and Abstract. Data is transferred over a RF channel using a TDD burst frame structure that bursts up to 32 simultaneous CDMA channels in the same 1 millisecond (ms) burst period (time slot). See Col. 14, lines 24-30 and Fig. 6.

Differences between the Cited Art and the Present Invention

Representative claim 1 recites in relevant part:

1.   A method for supporting wireless communications, the method comprising the steps of:
        allocating a first channel to support message transmissions from a base station to multiple field units;
        allocating a second channel to support message transmissions from the field units to the base station;
        assigning time slots in the first and second channel for message transmissions between the base station and field units;...

Applicants respectfully submit that Struhsaker does not teach or suggest Applicants claimed "*assigning time slots in the first and second channel.*"

Struhsaker teaches a radio channel structure in which all of the forward link channels (i.e., the "base TX" channels referred to in Fig. 6) transmit in the same (1 ms) time slot and all of the corresponding reverse link channels (i.e., "sub-TX" channels referred to in Fig. 6) transmit in the same (1 ms) time slot. That is, Struhsaker's Fig. 6 clearly points out that up to thirty-two simultaneous CDMA channels are assigned to the same time slot. In sharp contrast, Applicants' claimed invention assigns time slots within a channel. These assigned time slots are used for message transmissions between the base station and the field units. The time slots associated

with the forward link and reverse link channels taught by Struhsaker are not assigned within a channel as claimed by Applicants.

Because of the absence of Applicants' claimed *assigning time slots in the first and second channel* in Struhsaker, Applicants submit that Struhsaker does not, in fact, render Applicants' claims 1-15 and 17-29 anticipated under 35 U.S.C. § 102. Therefore, Applicants believe that claims 1-15 and 17-29 are in condition for allowance.

§ 103 Rejection

At paragraph 5 of the Office Action, claim 16 was rejected under 35 U.S.C. § 103 as being unpatentable over Struhsaker in view of U.S. Patent 6,396,823 to Park et al. (hereinafter "Park").

Park describes a base station transceiver for a frequency hopping/CDMA system. The system contains various elements including forward pre-processors, a forward signal switch, forward post-processors, a transmission/reception selector, reverse pre-processors, a reverse signal switch, reverse post-processors and a time division duplexing timing controller.

The forward pre-processors scramble data and packetize the scrambled data, and generate hopping frequency control data. The forward signal switch switches signals output from the forward pre-processors. The forward post-processors filter signals that are output from the forward signal switch, frequency-modulate the filtered signals with a transmission frequency synthesizing signal, and filter and amplify the frequency-modulated signals at a transmission frequency band. The transmission/reception selector selects a transmission or reception path. The reverse pre-processors demodulate received signals selected by the transmission/reception selector with a reception frequency synthesizing signal to restore clock and data, and detect a received signal strength indication signal. The reverse signal switch switches signals output from the reverse pre-processors. The reverse post-processors measure signal-to-noise ratios of signals output from the reverse signal switch, and de-packetize and descramble the signals output from the reverse signal switch to divide the signals into the traffic data and the control/signaling signal. The time division duplexing timing controller generates a time division duplexing timing control signal for controlling the transmission/reception selector. See Col. 3, lines 23-50.
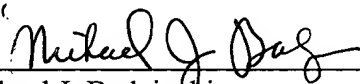
Applicants submit that neither Struhsaker nor Park taken either individually or in combination teach or suggest Applicants' claimed *assigning time slots in the first and second channel*. Thus, any attempted rejection of the claims using these references is prima facie deficient. Therefore, Applicants believe claim 16 is in condition for allowance.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By _____

Michael J. Badzinski
Registration No. 51,425
Telephone: (978) 341-0036
Facsimile: (978) 341-0136

Concord, MA 01742-9133
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